

ABSTRACT

A carbon dioxide adsorption element rapidly adsorbs a large amount of carbon dioxide, and regenerates amine groups for carbon dioxide adsorption rapidly and uniformly with high-temperature air. The carbon dioxide adsorption element 110 for adsorbing carbon dioxide in air comprises a foil-like or plate-like support member 111, a porous aluminum oxide film 112 covering the support member 111, and the amine groups 113 clinging to the inner surface of each pore 112a of the film 112 for carbon dioxide adsorption. The film 112 is formed by oxidation of aluminum or aluminum alloy. The depth direction of each pore 112a of the film is the thickness direction of the support member 111.